FIG. **15***c*, 20% of POLYSEG(**1**) coincides with segment S(**1**) resulting in a HITRATIO of 20%. In FIG. **15***d*, segment S(**1**) contacts only point **P1** of POLYSEG(**1**) resulting in a HITRATIO of 0%. In FIG. **15***e*, segment S(**1**) of stroke S coincides completely with POLYSEG(**1**), resulting in a 100% HITRATIO. In FIG. **15***f*, segment S(**1**) coincides with POLYSEG(**1**) and overlaps the end of POLYSEG(**1**) resulting in a HITRATIO greater than 100%, e.g. 115%. In FIG. **15***g*, the segment S(**1**) contacts point P(**1**) but does not coincide with any portion of POLYSEG(**1**), resulting in a negative HITRATIO, e.g. −15%.

Referring again to FIG. **14**, the decision step **210** then determines whether:

$$\{\text{HITRATIO} \geqq 0\%\} \text{ AND } \{\text{HITRATIO} \leqq 100\%\}$$

If HITRATIO is between zero and one hundred percent, inclusive, the variables LEFT and RIGHT are assigned the following values by step **216**:

$$\text{LEFT}=\text{MIN }\{\text{LEFT, HITRATIO}\}$$

$$\text{RIGHT}=\text{MAX }\{\text{RIGHT, HITRATIO}\}$$

where MIN and MAX are the functions discussed previously. If HITRATIO is not between zero and one hundred percent, inclusive, process control is returned to step **208**.

After the completion of iterative loop step **208**, a decision step **222** determines whether the variables LEFT and RIGHT are equal to $+\infty$ and $-\infty$, respectively. If they are, process control returns to iterative loop step **204**. If they are not, POLYSEG(p) is marked from LEFT to RIGHT. In consequence, the process **196** permits all or a portion of an individual segment of a graphical object to be selected. Process control then returns to iterative loop step **204**. Upon the completion of step **204**, process control returns to step **112** of FIG. **5**.

FIG. **16** illustrates a "Select" step **224** which is a preferred method for implementing step **224** of FIG. **14**. In a decision step **226**, LEFT is compared to the left endpoint P of POLYSEG(p) and, if they are approximately equal, LEFT is assigned the value of the left endpoint P of POLYSEG(p) in a step **228**. Next, in a decision step **230**, RIGHT is compared to the right endpoint P of POLYSEG(p) and, if they are approximately the same, RIGHT is assigned the value of the right endpoint P of POLYSEG(p) in a step **232**. In decision step **234**, LEFT is then compared with the midpoint of POLYSEG(p) and, if they are approximately equal, LEFT is assigned the value of the midpoint of POLYSEG(p) in a step **236**. In decision step **238**, RIGHT is compared with the midpoint of POLYSEG(p) and, if they are about the same, RIGHT is assigned the value of the midpoint of POLYSEG(p). Finally, in step **242**, POLYSEG(p) is selected from LEFT to RIGHT. The process **224** therefore "snaps" the selection to an endpoint or the centerpoint of a selected segment if an endpoint of the stroke is sufficiently near to those points. This process can be extended to any reasonable number of snap points. For example, the process could snap to points at 0, 25, 50, 75, and 100% of a selected segment.

Step **124** "Select General Object" of FIG. **5** will be discussed in greater detail with reference to FIG. **17**. In a first step **244**, the boundary box BOUNDS a stroke S is compared with reference lines provided with the general object. These reference lines are part of the parameters provided with each general object. If the stroke S does generally align with a reference line, step **246** causes the general object to be selected along the reference line. Methods for accomplishing selection along reference lines have been described previously and apply here. Process control is then returned to step **112** of FIG. **5**. If the stroke S does not generally align with a reference line, decision step **248** determines whether the stroke is substantially circular. Methods for determining whether a stroke is circular have already been discussed. If the stroke is not substantially circular, process control is again returned to step **112** of FIG. **5**. If it is substantially circular, decision step **250** determines whether the stroke S boundary box substantially overlaps the general object's boundary box. If it does not, process control is returned to step **112**. If it does substantially overlap, the entire general object is selected in a step **252** and process control is returned to step **112**. The methods previously described for detecting substantial overlap of bounding boxes and for the selection of partial and complete objects apply here as well.

An example of general selection along a reference line will be discussed with reference to FIGS. **18***a* and **18***b*. A specific example of imprecise selection of a general object will not be made, since the process is similar to the imprecise selection methods described previously.

EXAMPLE 7

Precise Selection of a General Object

In FIG. **18***a* a general object O includes a number of horizontal reference lines R_H. Step **244** of FIG. **17** determines that stroke S generally aligns with a reference line R_H. Step **246** then selects the general object along the reference line R_H using the selection process described previously to create a highlight H.

In FIG. **18***b* the general object O further includes a number of vertical reference lines R_v. Step **244** of FIG. **17** determines that a stroke S' generally aligns with one of the reference lines R_v. Step **246** then selects the general object O along the reference line R_v to create a highlight H'.

While this invention has been described in terms of several preferred embodiments, it is contemplated that alterations, modifications and permutations thereof will become apparent to those skilled in the art upon a reading of the specification and study of the drawings. Furthermore, certain terminology has been used for the purposes of descriptive clarity, and not to limit of the present invention. It is therefore intended that the following appended claims include all such alterations, modifications and permutations as fall within the true spirit and scope of the present invention.

What is claimed is:

1. A method of selecting one or more items on a display screen of a stylus-based computer system, the computer system providing bounding boxes surrounding the items displayed on the display screen, the computer system also providing a normal nib of activated pixels at a location where the stylus contacts the display screen, the computer system also providing a normal ink image of a path traversed by the stylus on the display screen, the width of the normal ink image corresponding to the size of the normal nib, the method comprising the following steps:

(a) automatically generating a highlight nib having a larger size than the normal nib when the stylus is held stationary on the display screen for a predetermined time period, the highlight nib capable of producing a highlight ink image which is wider than the normal ink image, the width of the highlight ink image corresponding to the size of the highlight nib;